Amendments to the Specification

Please add the following new paragraphs after paragraph [0038]:

[0038.1] Blocking layers may be used to prevent electrons and holes from leaving the emissive layer. An electron blocking layer may be disposed between the emissive layer and the p-doped layer, to prevent electrons from passing into the p-doped layer. Preferably, the energy barrier is sufficiently great that even high energy electrons have a small probability of surmounting the barrier. As a result, the energy barrier is preferably significantly higher than the thermal energy.

[0038.2] Similarly, a hole blocking layer may be disposed between the emissive layer and the n-doped layer, to prevent holes from passing onto the n-doped layer. Preferably, the energy barrier is sufficiently great that even high energy holes have a small probability of surmounting the barrier. As a result, the energy barrier is preferably significantly higher than the thermal energy.

[0038.3] Blocking layers may also be used to prevent excitons from diffusing out of the emissive layer. An exciton, which is an electron that has been excited into the conduction band, paired with a hole located on the same organic semiconductor molecule, has an energy that is related to the band gap of the semiconductor. The exciton energy is actually less than the band gap due to Coulombic attraction of the bound electron-hole pair. A material having a particular exciton energy will block the entry of excitons from a material having a lower exciton energy.

[0038.4] Excitons in a material having a particular band gap (the difference between the HOMO and LUMO energy levels) generally have an energy level that is less than that of excitons in a material having a wider band gap. Accordingly, excitons generally may not diffuse from a material having a lower band gap into a material having a higher band gap, and a higher band gap material may be used to block excitons from leaving a lower band gap material.